

IN THE CLAIMS:

1. (currently amended) A crystalline material characterized in that it does not contain fluorides, with a composition in a roasted state corresponding to that of the material called ITQ-17 and in that it has a composition on an anhydrous base and in terms of moles of oxides upon being synthesized, unroasted, represented by: $xX_2O_3: (1-z)YO_2: zGeO_2: r/n R_nO$ wherein:

X is at least one trivalent element,

Y is one or more tetravalent elements other than germanium,

R is an organic structure directing compound,

x varies between 0 and 0.02, ~~preferably between 0 and 0.01~~,

z is comprised between 0.02 and 0.67, ~~preferably between 0.04 and 0.5~~,

r varies between 0.01 and 0.5, ~~preferably between 0.01 and 0.25~~, and

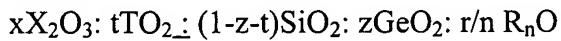
n is 1 or 2,

and whose most representative values of the X-ray diffraction angle are the following:

2θ +/- 0.5 (degrees)	Intensity (I/I ₀)
6.89	w, m
9.57	vs
19.35	m
21.37	m
21.90	vs

vs: very strong, m: medium, w: weak.

2. (currently amended) A crystalline material according to claim 1, whose composition on an anhydrous base and in terms of moles of oxide upon being synthesized, unroasted, may be represented by:



wherein:

T is one or more tetravalent elements other than Ge or Si,

t varies between 0 and 0.15, ~~preferably between 0 and 0.10, and~~

z is comprised between 0.02 and 0.67, ~~preferably between 0.04 and 0.5, and "x", "X",~~

~~"R", "r" and "n" have the meaning given in claim 1.~~

3. (previously presented) A crystalline material according to claim 1 or 2, wherein R is the cation 1-methyl-4-aza, 1-azoniumbicyclo [2.2.2] octane (DABMe⁺).

4. (previously presented) A crystalline material according to claim 1 or 2, wherein R is the cation 1,4-bis[N-(4-aza, 1-azoniumbicyclo [2,2,2] octane) methyl]benzene (d-DABBz)²⁺.

5. (currently amended) A crystalline material according to claim 1 wherein Y is one or more tetravalent elements selected ~~among~~ from the group consisting of Si, Sn, Ti and V and mixtures thereof.

6. (previously presented) A crystalline material according to claim 1 wherein Y is Si.

7. (currently amended) A crystalline material according to claim 1 or 2, wherein X is one or more trivalent elements element selected from the group consisting of B, Al, In, Ga, Fe and Cr.

8. (currently amended) A crystalline material according to claim 2, wherein T is one or more tetravalent elements selected ~~between~~ from the group consisting of V, Sn, and Ti and mixtures thereof.

9. (currently amended) A crystalline material according to claim 2, whose composition expressed in molar ratios is the following:

$\text{ROH}/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$ is between 0.5 and 0.01, ~~preferably between 0.25 and 0.01~~
 $\text{GeO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$ is between 0.67 and 0.02, ~~preferably between 0.5 and 0.04~~
 $(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)/\text{X}_2\text{O}_3$ is between ∞ and 50, ~~preferably between ∞ and 100 and~~
 $\text{TO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$ is between 0.15 and 0, ~~preferably between 0.1 and 0~~.

10. (currently amended) A crystalline material according to claim 2, whose composition expressed in molar ratios is the following:

$\text{R(OH)}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.25 and 0.005, ~~preferably between 0.125 and 0.005~~
 $\text{GeO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.67 and 0.02, ~~preferably between 0.5 and 0.04~~
 $(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)/\text{X}_2\text{O}_3$: between ∞ and 50, ~~preferably between ∞ and 100~~
 $\text{TO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.15 and 0, ~~preferably between 0.1 and 0~~.

11. (currently amended) A process for synthesizing a crystalline material that does not contain fluorides, with a composition in a roasted state corresponding to that of the material called ITQ-17 and in that it has a composition on an anhydrous base and in terms of moles of oxides upon being synthesized, unroasted, represented by:

$x\text{X}_2\text{O}_3: (1-z)\text{YO}_2: z\text{GeO}_2: r/n \text{R}_n\text{O}$

wherein:

X is at least one trivalent element,

Y is one or more tetravalent elements other than germanium,

R is an organic structure directing compound,

x varies between 0 and 0.02, ~~preferably between 0 and 0.01~~,

z is comprised between 0.02 and 0.67, ~~preferably between 0.04 and 0.5~~,

r varies between 0.01 and 0.5, ~~preferably between 0.01 and 0.25~~, and

n is 1 or 2,

and whose most representative values of the X-ray diffraction angle are the following:

2θ +/- 0.5 (degrees)	Intensity (I/I ₀)
6.89	w, m
9.57	vs
19.35	m
21.37	m
21.90	vs

vs: very strong, m: medium, w: weak,

and whose process comprises:

- a) preparing a synthesis mixture that comprises at least:
 - a source of one or several tetravalent elements included under the name Y,
 - a source of Ge,
 - a source of at least one structure directing agent, and water;
- b) keeping the synthesis mixture at temperatures between 100 and 200° C, until the crystalline material is formed, and
- c) recovering the crystalline material.

12. (previously presented) A process according to claim 11, wherein the source of germanium and of the rest of the tetravalent elements is an oxide.

13. (currently amended) A process according to claim 11, wherein the synthesis mixture also comprises a source selected ~~among~~ from the group consisting of :

- a source of one or more trivalent elements, X,
- a source of one or more tetravalent elements other than Si and Ge, and
- ~~a mixture of both mixtures thereof.~~

14. (currently amended) A process according to claim 11, wherein the source of the structure directing agent, R, is 1-methyl-4-aza, 1-azoniumbicyclo [2,2,2] octane hydroxide (DABMeOH), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

$H_2O/(YO_2+GeO_2)$: between 100 and 0.01, ~~preferably between 50 and 0.1~~,

$OH^-/(YO_2+GeO_2)$: between 3 and 0.01, ~~preferably between 1 and 0.03~~,

$R/(YO_2+GeO_2)$: between 3 and 0.01, ~~preferably between 1 and 0.03~~,

$GeO_2/(YO_2+GeO_2)$: between 0.67 and 0.02, ~~preferably between 0.5 and 0.04~~, and

$(YO_2+GeO_2)/X_2O_3$: between ∞ and 50, ~~preferably between ∞ and 100~~.

15. (currently amended) A process according to claim 11, wherein the source of the structure directing agent, R, is 1,4-bis[N-(4-aza, 1-azoniumbicyclo [2,2,2] octane) methyl]benzene hydroxide (d-DABBz(OH) ₂), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

$H_2O/(YO_2+GeO_2)$: between 100 and 0.01, ~~preferably between 50 and 0.1~~, OH.sup.-

YO_2+GeO_2 : between 3 and 0.01, ~~preferably between 1 and 0.03~~, $R/(YO_2+GeO_2)$:

~~between 1.5 and 0.005, preferably between 0.5 and 0.015~~, $GeO_2/YO_2+GeO_2^-$: between

~~0.657 and 0.02, preferably between 0.5 and 0.04~~, $(YO_2+GeO_2)/X_2O_3$: between ∞ and

~~50, preferably between ∞ and 100~~.

16. (currently amended) A process according to claim 11, for preparing a material whose composition may be represented by the formula:

$xX_2O_3: tTO_2: (1-z-t)SiO_2: zGeO_2: r/n R_nO$

wherein:

T is one or more tetravalent elements other than Ge or Si,

t varies between 0 and 0.15, preferably between 0 and 0.10,

z is comprised between 0.02 and 0.67, ~~preferably between 0.04 and 0.5, and "x", "X",~~

~~"R", "r" and "n" have the meaning given in claim 1, that comprises:~~

a) preparing a synthesis mixture that comprises at least: a source of silicon, a source of Ge, and a source of at least one structure directing agent (R) and water

b) keeping the synthesis mixture at temperatures between 100 and 200° C, until the crystalline material is formed, and

c) recovering the crystalline material.

17. (currently amended) A process according to claim 16, wherein the source of the structure directing agent (R) is 1-methyl-4-aza, 1-azoniumbicyclo [2,2,2] octane hydroxide (DABMeOH), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

$\text{H}_2\text{O}/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 100 and 0.01, ~~preferably between 50 and 0.1~~, OH^-
 $/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 3 and 0.01, ~~preferably between 1 and 0.03~~,
 $\text{R}/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 3 and 0.01, ~~preferably between 1 and 0.03~~,
 $\text{GeO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.67 and 0.02, ~~preferably between 0.5 and 0.04~~,
 $(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)/\text{X}_2\text{O}_3$: between ∞ and 50, ~~preferably between ∞ and 100~~, and
 $\text{TO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.15 and 0, ~~preferably between 0.1 and 0~~.

18. (currently amended) A process according to claim 16, wherein the structure directing agent, R, is 1,4-bis[N-(4-aza, 1-azoniumbicyclo [2,2,2] octane) methyl]benzene hydroxide (d-DABBz(OH)₂), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

$\text{H}_2\text{O}/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 100 and 0.01, ~~preferably between 50 and 0.1~~ OH^-
 $/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 3 and 0.01, ~~preferably between 1 and 0.03~~
 $\text{R}/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 1.5 and 0.005, ~~preferably between 0.5 and 0.015~~
 $\text{GeO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.67 and 0.02, ~~preferably between 0.5 and 0.04~~
 $(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)/\text{X}_2\text{O}_3$: between ∞ and 50, ~~preferably between ∞ and 100~~,
 $\text{TO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.15 and 0, ~~preferably between 0.1 and 0~~.

19. (currently amended) A process according to claim 16, wherein the synthesis mixture comprises one or more tetravalent elements, T, selected among from the group consisting of V, Sn, and Ti, and mixtures thereof.

20. (previously presented) A process according to claim 16, wherein the source of germanium, silicon and the rest of the tetravalent elements is an oxide.

21. (previously presented) A process according to claim 16, wherein the synthesis mixture also comprises a source of one or more trivalent elements, X.

22. (currently amended) A process according to claim 11 or 16 that also comprises a step of post-synthesis treatment of the material, whereby the organic component is removed from the structure by means of a technique selected ~~among~~ from the group consisting of extraction, roasting and both.

23. (currently amended) A material obtained according to the process of claim 22, characterized in that its diffraction diagram has the following as the most important lines:

2θ +/- 0.5 (degrees)	Intensity (I/I ₀)
6.89	w, m
9.59	vs
21.27	m
21.87	m
27.87	vs _z

24. (new) A crystalline material according to claim 1 wherein x varies between 0 and 0.01.

25. (new) A crystalline material according to claim 1 wherein z is comprised between 0.04 and 0.5.

26. (new) A crystalline material according to claim 1 wherein r varies between 0.01 and 0.25.

27. (new) A crystalline material according to claim 1 wherein x varies between 0 and 0.01, z is comprised between 0.04 and 0.5, and r varies between 0.01 and 0.25.

28. (new) A crystalline material according to claim 2 wherein t varies between 0 and 0.10.
29. (new) A crystalline material according to claim 2 wherein z is comprised between 0.04 and 0.5.
30. (new) A crystalline material according to claim 2 wherein t varies between 0 and 0.10, and z is comprised between 0.04 and 0.5.
31. (new) A process for synthesizing a crystalline material that does not contain fluorides according to claim 11 wherein x varies between 0 and 0.01.
32. (new) A process for synthesizing a crystalline material that does not contain fluorides according to claim 11 wherein z is comprised between 0.04 and 0.5.
33. (new) A process for synthesizing a crystalline material that does not contain fluorides according to claim 11 r varies between 0.01 and 0.25.
34. (new) A process for synthesizing a crystalline material that does not contain fluorides according to claim 11 wherein x varies between 0 and 0.01, z is comprised between 0.04 and 0.5, and r varies between 0.01 and 0.25.